

REMARKS

Claims 1-21 were pending. Claims 1-20 have been amended to clarify the invention and for uniformity. New claims 22-46 have been added. Support for the amended and new claims can be found throughout the specification, for example, as set forth in the chart below. No new matter is introduced. Thus, claims 1-46 will be pending upon entry of the amendments made herein.

| AMENDED/NEW CLAIM | SUPPORT IN THE SPECIFICATION |
|--|--|
| 2 | p. 55, line 22 to p. 56, line 2 |
| 3 | p. 55, line 22 to p. 56, line 2 |
| 4 | p. 52, lines 3-4 |
| 5 | p. 4, lines 2-4; p. 18, lines 14-16 |
| 6 “at least one hybrid antigen; at least one heat shock protein” “antigenic domain of infectious agent” | p. 54, lines 14-20; p. 55, lines 1-2, p. 4, lines 2-4; p. 18, lines 14-16 |
| 7 | p. 52, lines 3-4 |
| 8 | p. 4, lines 2-4; p. 18, lines 14-16 |
| 9 “at least one hybrid antigen; at least one heat shock protein” “antigenic domain of infectious agent” | p. 54, lines 14-20; p. 55, lines 1-2, p. 4, lines 2-4; p. 18, lines 14-16 |
| 10 | p. 52, lines 3-4 |
| 12 | p. 55, line 22 to p. 56, line 2 |
| 13 | p. 55, line 22 to p. 56, line 2 |
| 14 | p. 52, lines 3-4 |
| 15 | p. 4, lines 2-4; p. 18, lines 14-16 |
| 16 “at least one hybrid antigen; at least one heat shock protein” “antigenic domain of infectious agent” | p. 54, lines 14-20; p. 55, lines 1-2, p. 4, lines 2-4; p. 18, lines 14-16 |
| 17 | p. 52, lines 3-4 |
| 18 | p. 4, lines 2-4; p. 18, lines 14-16 |
| 19 “at least one hybrid antigen; at least one heat shock protein” “antigenic domain of infectious agent” | p. 54, lines 14-20; p. 55, lines 1-2 p. 4, lines 2-4; p. 18, lines 14-16 |
| 20 | p. 52, lines 3-4 |

| | |
|--|---|
| 22 | Original claim 5 |
| “method for inducing immune response” | p. 3, lines 28-30; p. 10, lines 5-9; p. 53, lines 26-27 |
| “antigenic domain of tumor antigen” | p. 4, lines 2-4; p. 18, lines 4-13 |
| 23 | Original claim 6 |
| “at least one hybrid antigen; at least one heat shock protein” | p. 54, lines 14-20; p. 55, lines 1-2 |
| “method for inducing immune response administering complex” | p. 3, lines 28-30; p. 8, lines 24-29; p. 53, lines 7-10 |
| “antigenic domain of tumor antigen” | p. 4, lines 2-4; p. 18, lines 4-13 |
| 24 | p. 52, lines 3-4 |
| 25 | Original claim 8 |
| “method for treating cancer” | p. 4, lines 2-4; p. 13, lines 1-5 |
| “antigenic domain of tumor antigen” | p. 4, lines 2-4; p. 18, lines 4-13 |
| 26 | Original claim 9 |
| “at least one hybrid antigen; at least one heat shock protein” | p. 54, lines 14-20; p. 55, lines 1-2 |
| “method for treating cancer comprising administering complex” | p. 4, lines 2-4; p. 11, lines 17-23 |
| “antigenic domain of tumor antigen” | p. 4, lines 2-4; p. 18, lines 4-13 |
| 27 | p. 52, lines 3-4 |
| 28 | p. 23, lines 21-23 |
| 29 | p. 4, lines 2-4; p. 18, lines 14-16 |
| 30 | p. 4, lines 2-4; p. 18, lines 4-6 |
| 31 | p. 18, lines 4-13; p. 22, lines 14-32 |
| 32 | p. 18, lines 14-16 |
| 33 | p. 18, lines 14-16 |
| 34 | p. 18, lines 14-22; p. 21, line 32 to p. 22, line 3 |
| 35 | p. 18, lines 14-16 |
| 36 | p. 18, lines 14-22; p. 19, line 1 to p. 21, line 31 |
| 37 | p. 18, lines 14-16 |
| 38 | p. 18, lines 14-22; p. 22, lines 4-13 |
| 39 | p. 51, line 30 to p. 52, line 4 |
| 40 | p. 56, lines 3-4 |
| 41 | p. 56, lines 3-4 |
| 42 | p. 54, lines 14-20; p. 55, lines 1-2 |

| | |
|----|--------------------------------------|
| 43 | p. 54, lines 14-20; p. 55, lines 1-2 |
| 44 | p. 53, line 11 |
| 45 | p. 53, line 11 |
| 46 | p. 53, line 11 |

ELECTION/RESTRICTIONS

The Examiner has required a restriction to one of the following inventions under 35 U.S.C. § 121:

- I. Claims 1-4 and 11-14, drawn to a hybrid antigen comprising or consisting essentially of at least one antigenic domain of an infectious agent or tumor antigen, a binding domain that non-covalently binds to a heat shock protein, and a peptide linker there between, classified in class 530, subclass 350.

- II. Claims 5-7 and 15-17, drawn to a method for inducing an immune response to an infectious agent or tumor antigen, comprising administering a hybrid antigen and heat shock protein, classified in class 514, subclass 2.

- III. Claims 8-10 and 18-20, partially drawn to a method for treating an infectious disease comprising administering a hybrid antigen and heat shock protein, classified in class 514, subclass 2.

- IV. Claims 8-10 and 18-20, partially drawn to a method for treating cancer comprising administering a hybrid antigen and heat shock protein, classified in class 514, subclass 2.

- V. Claim 21, drawn to a peptide that is Phe Phe Arg Lys (FFRK; SEQ ID NO:699); Phe Arg Lys (FRK); Phe Arg Lys Asn (FRKN, SEQ ID NO:701); Arg Lys Asn (RKN); Phe Phe Arg Lys Asn (FFRKN, SEQ ID NO:702); Phe Arg (FR), Gln Leu Lys (QLK), Gln Leu Glu (QLE), Ala Lys Val Leu (AKVL; SEQ ID NO:700); Lys Asn (KN); Arg Lys (RK); or AA₁-AA₂-AA₃-leucine (SEQ ID NO:9), wherein AA₁ is A, S, V, E, G, L, or K, AA₂ is K, V, or E; and AA₃ is V, S, F, K, A, E, or T, classified in class 530, subclass 300.

The Examiner contends that the inventions are distinct, each from the other.

Applicants hereby provisionally elect, with traverse, Group I, claims 1-4 and 11-14, drawn to a hybrid antigen comprising or consisting essentially of at least one antigenic

domain of an infectious agent or tumor antigen, a binding domain that non-covalently binds to a heat shock protein, and a peptide linker there between, classified in class 530, subclass 350.

In addition to election of one of the above inventions, the Examiner required election of one of the following species in the event that Group I or Group V is elected:

Species 1: Phe Phe Arg Lys (FFRK; SEQ ID NO:699);

Species 2: Phe Arg Lys (FRK);

Species 3: Phe Arg Lys Asn (FRKN, SEQ ID NO:701);

Species 4: Arg Lys Asn (RKN);

Species 5: Phe Phe Arg Lys Asn (FFRKN, SEQ ID NO:702);

Species 6: Phe Arg (FR);

Species 7: Gln Leu Lys (QLK);

Species 8: Gln Leu Glu (QLE);

Species 9: Ala Lys Val Leu (AKVL; SEQ ID NO:700);

Species 10: Lys Asn (KN);

Species 11: Arg Lys (RK); and

Species 12: AA₁-AA₂-AA₃-leucine (SEQ ID NO:9), wherein AA₁ is A, S, V, E, G, L, or K, AA₂ is K, V, or E; and AA₃ is V, S, F, K, A, E, or T.

In order to be fully responsive, Applicants hereby provisionally elect with traverse Species 1: Phe Phe Arg Lys (FFRK; SEQ ID NO:699).

Applicant believes that new claims 28-43 are directed to products that fall within the invention of Group I; new claims 22-24 and 44-46 are directed to processes that fall within the invention of Group II; and new claims 25-27 are directed to processes that fall within the invention of Group IV.

Upon the allowance of a product claim, Applicants request that any withdrawn process claims that depend from or otherwise include all the limitations of the allowable product claim be rejoined in accordance with the provisions of M.P.E.P. § 821.04. Presently, Applicant believes that the process claims 5-10, 15-20, 22-27 and 44-46 include all the limitations of a pending product claim within elected Group I.

Applicant fully reserves the right to prosecute the subject matter of the non-elected inventions in one or more related applications. In addition, Applicant retains the right to petition from the restriction requirement under 37 C.F.R. § 1.144.

Applicant respectfully requests that the above remarks and amendments be entered and made of record in the file history of the instant application.

Respectfully submitted,

Date: April 12, 2006

Adriane M. Antler 32,605
Adriane M. Antler (Reg. No.)
JONES DAY
222 East 41st Street
New York, NY 10017
(212) 326-3939